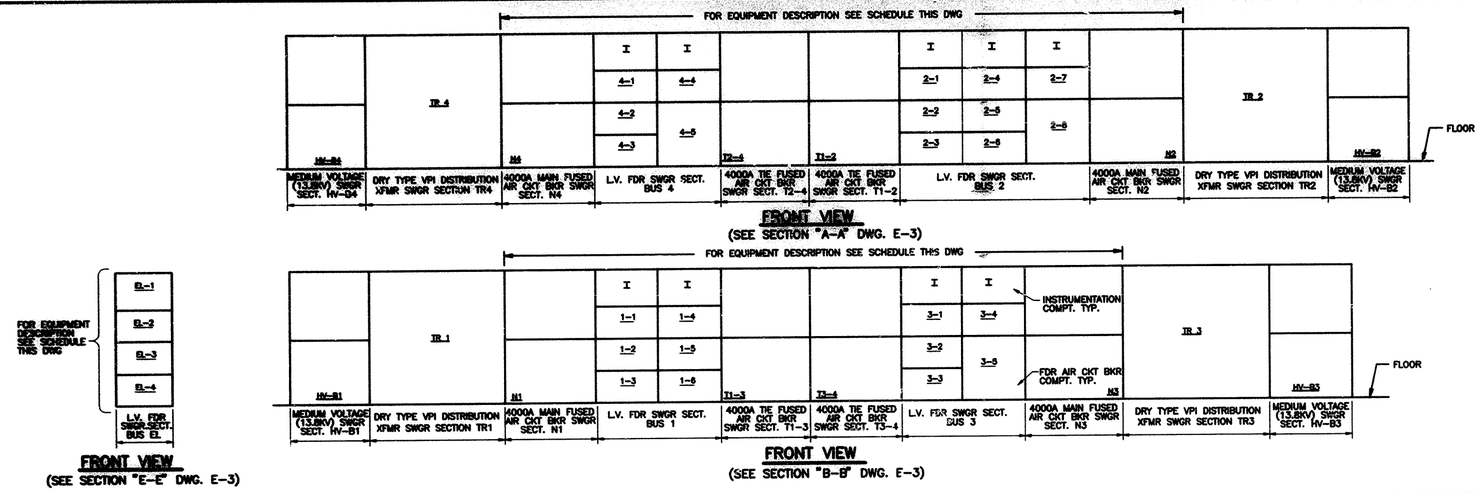

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND SUMMARY OF EQUIPMENT SEE DRAWING E-1

SCHEDULE LEGEND

1. FUSE – CURRENT LIMITING FUSES, SEE SPECIFICATION.
2. SPACE – SPACE SHALL BE A FULLY EQUIPPED COMPARTMENT WITH BUS, PRIMARY & SECONDARY DISCONNECTS & CRADLE FOR DRAWOUT BREAKERS.
3. PROVIDE LUGS ON BREAKER AND GROUND BUS FOR CONDUCTORS SHOWN IN SCHEDULE ON THIS DRAWING.
4. PROVIDE LUGS ON GROUND BUS AS FOLLOWS:
   2000A FRAME = 5–250MCM
   1600A FRAME = 3 #4/0
   800A FRAME = 3 #1/0

X INDICATES REQUIRED
-- NOT REQUIRED

LOW VOLTAGE MAIN, TIE AND FEEDER AIR CIRCUIT BREAKERS SCHEDULE

SWITCHGEAR SECTIONS	BKR COMPT. NO.	LOAD DESCRIPTION	CIRCUIT BREAKER CHARACTERISTICS & ACCESSORIES									FEEDER			
					SOLID STATE TRIP UNIT								CONDUIT		
			FRAME	TRIP	L.T.	S.T.	INSTA.	G.F.	U.V. TRIP	MONITORING & CONTROL FUNCTIONS. SEE SPECS	FUSE(1)	DESIGNATION	QTY	SIZE	CONDUCTORS PER CONDUIT (3)
MAIN FUSED AIR CKT BKR–SWGR SECT. N1	N1	MAIN AIR CKT. BREAKER 41 S A5 N1	4000A	4000A	X	X	X	X	--	--	5000A	--	--	--	
LOW VOLTAGE FDR SWGR SECT. BUS 1	1–1	SPARE	1600A	1600A	X	X	X	X	X	X	2500A	--	--	--	-(4)
LOW VOLTAGE FDR SWGR SECT. BUS 1	1–2	(R2a) 480/277V ELEC. CLOS. "S" 43rd TO 50th FL	1600A	1600A	X	X	X	X	X	X	2500A	F–SS41R–2a	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 1	1–3	(R8) DAI–ICHI KANGYO BANK – 49th FLOOR	800A	400A	X	X	X	X	X	X	600A	F–SS41R–7	1	3 1/2"C	3–500MCM & 1# 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 1	1–4	(R4) ELEVATOR BUS #41S–EL VIA TRANSFER SWITCH	1600A	1200A	X	X	X	X	--	X	2000A	F–SS41R–4	3	3 1/2"C	3–500MCM & 1# 3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 1	1–5	SPACE (2)	1600A	--	--	--	--	--	--	--	--	--	--	--	-(4)
LOW VOLTAGE FDR SWGR SECT. BUS 1	1–6	PANEL #DP–41S	800A	800A	X	X	X	X	X	X	1200A	(1–6)	2	3 1/2"C	4–500MCM & 1# 2/0 GND
TIE FUSED AIR CKT BKR–SWGR SECT. T1–3	T1–3	TIE AIR CKT. BREAKER 41 S T1–3	4000A	4000A	X	X	X	X	--	X	4000A				4000A BUSWAY
MAIN FUSED AIR CKT BKR–SWGR SECT. N2	N2	MAIN AIR CKT. BREAKER 41 S A6 N2	4000A	4000A	X	X	X	X	--	--	5000A	--	--	--	
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–1	(R1) 208/120V TRANS'F–ELEC. CLOS. "S" 43rd TO 58th FL	1600A	800A	X	X	X	X	X	X	1200A	F–SS41R–1	2	3 1/2"C	3–500MCM & 1# 2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–2	(R2b) 480/277V ELEC. CLOS. "S" – 51st TO 58th FL	1600A	1600A	X	X	X	X	X	X	2500A	F–SS41R–2b	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–3	(R–7) DINING FACILITY – 44th FLOOR	800A	400A	X	X	X	X	X	X	600A	F–SS41R–7	1	3 1/2"C	4–500MCM & 1# 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–4	(R5) MOTOR CONTROL CENTER # MS41R	1600A	1200A	X	X	X	X	X	X	2000A	F–SS41R–5	3	3 1/2"C	3–500MCM & 1# 3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–5	SPARE	1600A	1600A	X	X	X	X	X	X	2500A	--	--	--	-(4)
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–6	(R–BT) EMERG LIGHTING PANELS ALTERNATE SOURCE 25th TO 58th	800A	225A	X	X	X	X	--	X	350A	F–SS41R–BT	1	2 1/2"C	3 # 4/0 & 1 # 2 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–7	(R3) WATER SUPPLY PUMPS (1–75HP & 1–40HP)	800A	400A	X	X	X	X	X	X	600A	F–SS41R–3	1	3 1/2"C	3–500MCM & 1 # 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 2	2–8	SPARE	2000A	2000A	X	X	X	X	X	X	3000A	--	--	--	-(4)
TIE FUSED AIR CKT BKR–SWGR SECT. T1–2	T1–2	TIE AIR CKT. BREAKER 41 S T1–2	4000A	4000A	X	X	X	X	--	X	4000A				4000A BUSWAY
MAIN FUSED AIR CKT BKR–SWGR SECT. N3	N3	MAIN AIR CKT. BREAKER 41 S A7 N3	4000A	5000A	X	X	X	X	--	--	5000A	--	--	--	
LOW VOLTAGE FDR SWGR SECT. BUS 3	3–1	SPARE	1600A	1600A	X	X	X	X	X	X	2500A	--	--	--	-(4)
LOW VOLTAGE FDR SWGR SECT. BUS 3	3–2	(L4b) 480/277V – ELEC. CLOS. "S" – 25th TO 32nd FL	1600A	1600A	X	X	X	X	X	X	2500A	F–SS41L–4b	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 3	3–3	SPARE	800A	300A	X	X	X	X	X	X	1200A	--	1	--	2#2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 3	3–4	(L2) DINING FACILITY 43rd FLOOR	800A	400A	X	X	X	X	X	X	600A	F–SS41L–2	1	3 1/2"C	4–350MCM & 1 # 2 GND
LOW VOLTAGE FDR SWGR SECT. BUS 3	3–5	(L1) ELEVATOR DISTRIBUTION PANELS EL–A41W–A & EL–A41E–A	2000A	2000A	X	X	X	X	--	X	3000A	F–SS41L–1	5	3 1/2"C	3–500MCM & 1–250MCM GND
TIE FUSED AIR CKT BKR–SWGR SECT. T3–4	T3–4	TIE AIR CKT. BREAKER 41 S T3–4	4000A	4000A	X	X	X	X	--	X	4000A				4000A BUSWAY
MAIN FUSED AIR CKT BKR–SWGR SECT. N4	N4	MAIN AIR CKT. BREAKER 41 S A8 N4	4000A	4000A	X	X	X	X	--	X	5000A	--	--	--	
LOW VOLTAGE FDR SWGR SECT. BUS 4	4–1	(L3) 208/120V TRANS'F. ELEC. CLOS. "S" – 25th TO 40th FL	1600A	800A	X	X	X	X	X	X	1200A	F–SS41L–3	2	3 1/2"C	3–500MCM & 1 # 2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 4	4–2	(L4a) 480/277V – ELEC. CLOS. "S" – 33rd TO 40th FL	1600A	1600A	X	X	X	X	X	X	2500A	F–SS41L–4a	--	--	2000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS 4	4–3	SPARE	800A	800A	X	X	X	X	X	X	1200A	--	1	--	2#2/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 4	4–4	(L7) MOTOR CONTROL CENTER #MS41L	1600A	1200A	X	X	X	X	X	X	2000A	F–SS41L–7	3	3 1/2"C	3–500MCM & 1#3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS 4	4–5	(LBT) FIRE PUMP (300 HP)	2000A	2000A	X	X	X	--	--	X	3000A	F–SS41L–BT	3	3 1/2"C	3–500MCM & 1–250MCM GND
TIE FUSED AIR CKT BKR–SWGR SECT. T2–4	T2–4	TIE AIR CKT. BREAKER 41 S T2–4	4000A	4000A	X	X	X	X	--	X	4000A				4000A BUSWAY
LOW VOLTAGE FDR SWGR SECT. BUS EL	--	L.V. FDR. SWGR. SECT. 41 S BUS EL (INCOMING FEEDER R–4)	--	--	--	--	--	--	--	--	--	F–SS41R–4	3	3 1/2"C	3–500MCM & 1#3/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL–1	(R10) ELEVATOR DISTRIBUTION PANEL # EL–A–18B	800A	300A	X	X	X	X	--	X	450A	F–SS41R–10	1	2 1/2"C	3–250MCM & 1# 2 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL–2	(R11) ELEVATOR DISTRIBUTION PANEL # EL–A–26B	800A	400A	X	X	X	X	--	X	600A	F–SS41R–11	1	3 1/2"C	3–500MCM & 1# 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL–3	(R12) ELEVATOR DISTRIBUTION PANEL # EL–A–34B	800A	400A	X	X	X	X	--	X	600A	F–SS41R–12	1	3 1/2"C	3–500MCM & 1# 1/0 GND
LOW VOLTAGE FDR SWGR SECT. BUS EL	EL–4	(R13) ELEVATOR DISTRIBUTION PANEL # EL–A–42B	800A	600A	X	X	X	X	--	X	1000A	F–SS41R–13	2	3"C	3–350MCM & 1# 2/0 GND

Sheet 8 Of 15

[redacted] OF NY & NJ

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Engineering Department
Design Division

The World Trade Center Electrical/HVAC Upgrade Program

Title

ELECTRICAL SUBSTATION EQUIPMENT TOWER ONE AND TWO

ELECTRICAL

TOWER ONE
SUBSTATION SS–41S
FRONT VIEW & SCHEDULES

No.	Date	Revision	Approved

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FISCHER Designed by | D. LEAHY Drawn by | JM Checked by

Date FEB 10, 1995 Scale NONE

Contract Number WTC–802.072A Drawing Number E–7

FILE NAME : 80272E07 FEB. 10, 1995